## REMARKS/ARGUMENTS

Applicant and the Examiner had an interview on July 15, 2005. Applicant has carefully reviewed the summary and finds it as accurate respecting the substance of the interview.

Applicant and the Examiner had an interview on January 5, 2006. Applicant misplaced the Interview Summary mailed by the Examiner and failed to respond to the Summary. Applicant has carefully reviewed the summary and generally accepts it as accurate except that the Examiner and Applicant agreed that limiting the pending claims to contact centers would place the claims closer to allowance. With this in mind, Applicant amended the claims. No agreement was reached as to the allowability of the claims. The Examiner indicated that he would need to consider any claim amendments and perform further searching.

Applicant had a further interview with the Examiner on July 12, 2006. Applicant and Examiner discussed a proposed draft amendment and response. The Examiner indicated that the cited references were overcome by the claim amendments.

The Examiner has objected to claims 93 and 105 because of various informalities. The claims have been amended to address these informalities.

The Examiner rejects Claims 93-102 and 104-113 under 35 U.S.C.§103(a) as being unpatentable over Pierrat et al. (U.S. 6,792,590) and further in view of Powers (U.S. 5,956,691) and Claims 103 and 114 under 35 U.S.C.§103(a) as being unpatentable over Perrat et al. and Powers and further in view of Microsoft Office 2000 professional edition ("Office 2000").

Applicants respectfully traverse the Examiner's rejections. The cited references fail to teach or suggest at least the following italicized features in the pending independent claims:

93. In a call center comprising a plurality of agent stations and agents, a method comprising:

(a) receiving a first set of data values, the data being related to each agent, each agent station, and a call center function and being stored in a tabular form;

(b) generating a first graphical image representative of the first set of data values;

(c) *receiving a user selection of first and second data values in the first set of data values on the first graphical image, a first portion of the first graphical image being positioned between and including the selected first and second data values and second and third portions of the first graphical image being positioned on either side of the first and second data values, respectively, wherein the first, second, and third portions are part of, and defined by points located successively along, the first graphical image, with the second portion being located to the left of the first data value and the third portion being located to the right of the second data value*;

(d) *receiving a user selection of an editing function from among a plurality of predetermined editing functions*;

(e) *applying the user selected first editing function to the first portion of the first graphical image but not the second and third portions of the first graphical image to generate a second graphical image, the second graphical image comprising the second and third portions on either side of the first and second data values and a edited first portion between the first and second data values, the edited first portion being generated from application of the user selected first editing function to the data values in the first portion and being different from the first portion*; and

(f) *revising the first set of data values to yield a second set of data values conforming to the second, third, and edited first portions of the second graphical image.*

105. A call center, comprising:

(a) *a plurality of agent stations operable to receive customer contacts*;

(b) *a plurality of agents operable to service the customer contacts*;

(c) *an input operable to receive a first set of data values, the data being related to each agent, each agent station, and a call center function*;

(d) a storage medium operable to store the first set of data values in a tabular form; and

(e) *a call center simulator* operable to:

(i) generate a first graphical image representative of the first set of data values;

(ii) receive user selected first and second data values in the first set of data values on the first graphical image, a first portion of the first graphical image being positioned between the selected first and second data values and second and third portions of the first graphical image being positioned on either side of the first and second data values, respectively, wherein the first, second, and third portions are part of, and defined by points located successively along, the first graphical image, with the second

portion being located to the left of the first data value and the third portion being located to the right of the second data value;

(iii) *receive a user selection of an editing function from among a plurality of predetermined editing functions*;

(iv) *apply the user selected first editing function to the first portion of the first graphical image but not the second and third portions of the first graphical image to generate a second graphical image, the second graphical image comprising the second and third portions on either side of the first and second data values and a edited first portion between the first and second data values, the edited first portion being generated from application of the user selected first editing function to the data values in the first portion and being different from the first portion*; and

(v) *revise the first set of data values to yield a second set of data values conforming to the edited first portion of the second graphical image, wherein the second set of data values is a simulation of call center operations based on the first set of data values.*

Peirrat et al.

To fabricate an integrated circuit (IC), engineers first use a logical electronic design automation (EDA) tool, also called a functional EDA tool, to create a schematic design, such as a schematic circuit design consisting of symbols representing individual devices coupled together to perform a certain function or set of functions. After the arrangement of materials by layer is designed, a fabrication process is used to actually form material on each layer. That process includes a photo-lithographic process using a mask having opaque and transparent regions that causes light to fall on photosensitive material in a desired pattern. After light is shined through the mask onto the photosensitive material, the light-sensitive material is subjected to a developing process to remove those portions exposed to light (or, alternatively, remove those portions not exposed to light). Etching, deposition, diffusion, or some other material altering process is then performed on the patterned layer until a particular material is formed with the

desired pattern in the particular layer. The result of the process is some arrangement of material in each of one or more layers, here called printed features layers.

Because of the characteristics of light in photolithographic equipment, and because of the properties of the material altering processes employed, the pattern of transparent and opaque areas on the mask is not the same as the pattern of materials on the printed layer. A mask design process is used, therefore, after the physical EDA process and before the fabrication process, to generate one or more mask layouts that differ from the design layers. When formed into one or more masks and used in a set of photolithographic processes and material altering processes, these mask layouts produce a printed features layer as close as possible to the design layer.

As the critical dimensions of the features on the design layers become smaller and approach the resolution of the fabrication process, the consistency between the mask and the printed features layer is significantly reduced. Specifically, it is observed that differences in the pattern of printed features from the mask depend upon the size and shape of the features on the mask and the proximity of the features to one another on the mask. Such differences are called proximity effects.

Pierrat et al. is directed to techniques for identifying evaluation points on an edge of a polygon corresponding to the design layer for correcting proximity effects. Techniques include selecting from among all edges of all polygons in a proposed layout a subset of edges for which proximity corrections are desirable. The subset of edges includes less than all the edges. Evaluation points are established only for the subset of edges. Corrections are determined for at

least portions of the subset of edges based on an analysis performed at the evaluation points. Other techniques include establishing a projection point on a first edge corresponding to the design layout based on whether a vertex of a second edge is within a halo distance. An evaluation point is determined for the first edge based on the projection point and characteristics of the first edge. It is then determined how to correct at least a portion of the edge for proximity effects based on an analysis at the evaluation point.

Pierrat et al. does not teach the user selection of an editing function from among a number of editing function. As support for this teaching, the Examiner cites col. 21, lines 37-47, and Fig. 5. At this location, Pierrat et al. states as follows:

> In yet another embodiment, the proximity effects model is run for closely spaced points along certain critical edges on a proposed layout or layouts, as described above with respect to FIG. 5. Based on the rates of change of model amplitude along the edge, such as the first and second derivative, the edge is divided into segments. For example, a segment is formed for every change in model amplitude along the edge above a predetermined minimum change. For another example, a segment is defined between every inflection point where the second derivative crosses zero. These segments are not derived from the dissection parameters, but are directly observed on the certain edges. Dissection points are then placed at the segment endpoints and an evaluation point is placed between each pair of dissection points.

As can be seen from the above passage, Pierrat et al. teaches the use of a changing input variable to an editing function, and not different editing functions, to segment edges.

Powers

For this teaching, the Examiner additionally relies on Powers. Powers is directed to a dynamic, user friendly insurance policy illustration system for computing and graphically displaying the future values of a model life insurance policy. Key variables are entered and a graphic display of future values is instantly displayed. Variable keys can be selected to recalculate or solve for a certain stated policy performance, or variables can be entered and changed at will to display various "what if" life insurance scenarios. Variables can be rapidly moved through a range of values to create a "move" of the illustrated values changing from variable "A" to "B." The dynamic policy illustration system has built-in tables which can be used to view the effect various economic changes may have on a life insurance illustration. In addition, the dynamic policy illustration system includes an interactive expectations assessment process that uses a questionnaire, inferences and feedback for educating the user about life insurance and thereby leads the user to the most suitable life insurance policy selection based on his/her responses.

The Examiner relies on Figs. 7 and 8 of Powers and states that mortality charges is the second portion of the graph, the total premiums the third portion, and interest the first portion. The first portion is changed by selecting an interest rate in box 74E.

This example ignores the fact that, in the present invention, the underlying data (the interest rate) is changed first by selecting points on a plot over which a change is desired and second by selecting an appropriate editing function. The underlying data tables are then changed

in response to selection of the editing function. In Powers by contrast, the underlying data value is changed first and then the graphical representation of the data is changed.

## Office 2000

Office 2000 fails to teach or suggest not only the selection of a range of values in an existing chart over which a graphically displayed function is to be edited and outside of which no edition is performed but also the use of user manipulable affordances in the existing chart to effect the editions. Office2000 is directed to the Excel product, which is premised on spread sheets being composed of a plurality of cells. Groups of cells may be linked together for purposes of applying a mathematical function, such as addition and subtraction, to the values in the cells. Various functions are provided for the user to select from. Excel permits a user to generate various types of graphical images from a group of cells, such as a pie chart, line and area charts, column and bar charts, and specialty charts. In *creating* a *new* graphical image, the reference states at page 611 that "[a]s you change options, the chart preview will reflect your changes. When you've finished setting options, click Next to continue." The reference fails to state what options are changed and previewed or how the options are selected. In editing an existing chart, the reference states at page 613 that, using drag-and-drop techniques, a data series can be selected and *added* to the chart (*i.e.,* a new range of values will be added to the chart outside of the existing ranges of values). The chart will be automatically updated to reflect the *added* data series. However, Office2000 does not discuss selectively editing an existing chart

over only an *existing* range of the chart (*i.e.,* over a range that is not added to the chart as part of the editing process).

Although Office2000 teaches at page 594 absolute cell references that are not changed if a formula is filled or copied into another cell, this feature is taught in connection not with a editing a graphical image but with changing a cell value in a table of values. To implement the change as a graphical image, a new image would presumably need to be created. This is a cumbersome way to change graphical images until the desired image is generated. The claimed invention permits one to directly edit the graphical image using user manipulable affordances.

In light of the foregoing, the Examiner, at page 5 of the Office Action, states that "the claim does not specify the range of first portion i.e., the start and end points (the same argument applies to the second and third portions)" and, at page 6 of the Office Action, suggests that:

> Applicant may . . . overcome the references by providing limitations for the first, second, and third portions. For clarity purposes "a fourth portion" may be referred as an edited first portion.

Applicant has amended the independent claims as recommended by the Examiner.

Accordingly, the claims are allowable.

The dependent claims provide further reasons for allowance.

By way of example, dependent claims 94 and 106 generally require the first set of data values to be a table, the table to include a plurality of measurements of a parameter, the parameter to have a time varying value, and the set of data values to include a number of agents assigned to a selected task during a selected time period.

Dependent claims 95 and 107 generally require the table to be used to simulate a workflow process and the second set of data values to be a simulation of contact center operations based on the first set of data values.

Dependent claims 96 and 108 generally require a value associated with a specified location on at least one of the first and second graphical images to be displayed in response to the user positioning a cursor over the specified location, wherein the value is displayed in the vicinity of the cursor.

Dependent claims 103 and 114 generally require the plurality of editing functions include a plurality of a normal distribution, a Gaussian distribution, a Poisson distribution, a uniform editing function, a double ramp editing function, and an exponential editing function.

Based upon the foregoing, Applicants believe that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

SHERIDAN ROSS P.C.

By: Douglas Swartz

Douglas W. Swartz
Registration No. 37,739
1560 Broadway, Suite 1200
Denver, Colorado 80202-5141
(303) 863-9700

Date: July 12, 2006